

THE CHICK PAPERS

Georgia Poultry Laboratory Network's Monthly Newsletter



Validation of Pooled Samples in BHI for Mycoplasma PCR Testing*

Len Chappell & Dr. Louise Dufour-Zavala

Introduction:

The testing priority for sick poultry flocks, especially over the past year (2022), was to rule out avian influenza (AI). The protocols for pooling 1 -11 swabs in 5.5 mls BHI for PCR:AI testing are well established. However, once it is determined that AI is not detected in the BHI pooled sample, it would be convenient to use the same pooled sample taken in BHI for Mycoplasma testing. Although individual samples (oropharyngeal swabs) taken in BHI media for Mycoplasma testing are mentioned in the NPIP program standards (Standard D (1)), the pooling of multiple swabs (2- 11) in BHI has not been validated using the IDEXX Mycoplasma MG/MS Multiplex PCR.

Results:

Mean Ct Values for both MS & MG Positive Flocks

Positive Pools	# Positive Swabs	# Negative Swabs	# Pools Tested	Media	Positive Pools	Mean Ct
MS	1	10	59	SALINE	57	33.4
				BHI	57	32.3
MG	1	10	27	SALINE	24	32.9
				BHI	24	32.8

Conclusion:

This study confirms that the pooling 11 oropharyngeal swabs in BHI or in saline proved to be an acceptable method for Mycoplasma PCR testing. No detection was lost by pooling one positive swab and 10 negative swabs.

Cycle Threshold (Ct) values were compared between samples pooled in BHI and samples pooled in saline for the IDEXX Mycoplasma MG/MS Multiplex PCR. For MS, Ct values were lower in brain heart infusion (BHI) than saline, indicating that it is a better swab eluting buffer.

For MG, no difference was found.

Collection of Mycoplasma samples in BHI is meant to be used as a diagnostic tool. It is not intended for routine NPIP testing.

Acknowledgements:

Dr. Louise Dufour-Zavala, Dr. Brian Fairchild, Naola Ferguson-Noel, Heather Failyer, Holly Bagwell, Tanya Arrowwood, Jessica Arrowwood, Melody Maddox, Alexandra Hogan. Dr. Doug Waltman

*** AAAP POSTER ABBREVIATED TO FIT THIS NEWSLETTER**

GPLN AAAP POSTER PRESENTERS 2023

